

CONTRACT

FOR

CONSTRUCTION AND EQUIPMENT.

On the Fifth day of April, in the Year of Our Lord, one Thousand Eight Hundred and Seventy-two,

Before J. A. CHARLEBOIS, Notary Public, duly commissioned and sworn, in and for that part of the Dominion of Canada, called the Province of Quebec, residing in the City of Quebec,

Personally came and appeared PERRY H. SMITH, Esquire, SAMUEL L. KEITH, Esquire, and GEORGE L. DUNLAP, Esquire, all of the City of Chicago, United States of America, Railway Contractors, and actually in the City of Quebec, of the *first part*,

And the HONORABLE JOSEPH CAUCHON, President of the Senate of Canada, and President of the NORTH SHORE RAILWAY COMPANY, residing in the said City of Quebec, acting herein as the PRESIDENT of the said NORTH SHORE RAILWAY COMPANY, a body corporate, duly incorporated by act of Parliament for and in the name of the said Company, and duly authorized to the effect hereof by a resolution passed by the Board of Directors of the said NORTH SHORE RAILWAY COMPANY at a meeting held in Quebec, on the twenty-first day of February, now last, a copy of which resolution has been annexed to these presents, *party of the second part*;

Which said parties have STIPULATED, AGREED, AND COVENANTED as follows, to wit:

The said parties of first part, in consideration of the payments and conditions hereinafter agreed to be made, executed and performed by the party of the second part, hereby COVENANT, STIPULATE, AGREE AND BIND AND OBLIGE THEMSELVES *jointly and severally*, to furnish all the materials, and perform, do, and execute all the works required to construct, equip, finish, and in every respect complete the Railway of the party of the second part, known and designated as the *North Shore Railway*, extending from a point at or near Saint Paul's Market, in St. Peter's Ward, of the City of Quebec, to a point at or near the North-Easterly limits of the City of Montreal, in the said Province of Quebec, a distance of about one hundred and sixty miles; and also to furnish all the materials and perform, do, and execute all the works required to construct, equip, finish, and in every respect complete the *Piles Branch* of the said North Shore Railway, extending from the Town of Three Rivers to a point at or near the *Grand Piles*, upon the Saint Maurice River, a distance of about thirty miles; and also to furnish all the materials and perform all the works required to construct, equip, finish, put in good sailing order, and in every respect complete a Steam-boat to ply and navigate on the said River Saint Maurice.

IT IS HEREBY UNDERSTOOD between the parties of the first and second part, that the aggregate length of the Main Line and Piles Branch shall not exceed one hundred and ninety miles; and also that the most direct and practicable route of which the capabilities of the country will reasonably admit shall be adopted, both for the Main Line and Branch; as also that the said constructions and equipments are to embrace all the expenses connected with Engineering, Right of Way, (except as hereinafter modified), Fencing, Gates and Fixtures, Clearing and Grubbing, Graduations, Foundations, Masonry, Bridging, Superstructure, Machine-Shops, Engine-Houses, Water-Stations, Passenger and Freight Stations, Locomotive-Engines, and Rolling-Stock, as the same are more fully described and set forth in the specifications hereto annexed, forming part of this Agreement, duly acknowledged by the parties of the first and second part, certified and signed by them this day, and the undersigned Notary.

AND the said parties FURTHER COVENANT AND AGREE that the said materials, workmanship, and fixtures required for the construction, equipment, finishing, and completion of the said Railway, shall be *first class*

in their character, and that they shall conform in every respect to the requirements of Law, to the General Railway acts and other statutes referring to the said Company, and to the annexed specifications.

AND IT IS FURTHER AGREED by the parties, that the said work of construction and building shall be commenced as soon as practicable after the execution of the present Agreement, and on no event later than the first day of May next ensuing; and that the entire work of construction and equipment of the Main Line shall be completed in accordance with the terms and conditions hereof, on or before the first day of December, in the year one thousand eight hundred and seventy-five. As regards the Piles Branch, it shall be fully completed within the time required by the Charter of the Company, to wit.: on or before the first day of May, One Thousand Eight Hundred and Seventy-seven.

AND the said parties of the first part FURTHER COVENANT AND AGREE, that upon the execution of these presents they will assume and pay over to the said party of the second part the sum of *Forty-two Thousand Five Hundred and Thirty-four Dollars and Twenty-eight Cents*, current money of Canada, in liquidation of the expenses heretofore incurred in keeping up the organization of the said Railway Company, and in surveys and engineering expenses, and also in obtaining subscriptions to the Capital Stock of the said Railway Company.

AND also the parties of the first part BIND AND OBLIGE THEMSELVES as aforesaid to pay a sufficient amount to the said Railway Company, or place the said Company in funds to meet the ordinary expenses of the said Company and of its Board of Directors and employees, said expenses not to exceed, however, the sum of *Five Thousand Dollars* currency per annum.

AND the parties of the first part do also AGREE to pay to the entire discharge and acquittal of the said North Shore Railway Company, the interest as it may become due upon the Stock Certificates delivered to the parties of the first part, issued by the Corporation of the City of Quebec on account of its subscription to the Capital Stock of the said Company; and such interest is to be so paid up to the time of the opening of the Main Line of the said Railway between Quebec and Montreal, and the running of the first through-train between those two cities.

AND FURTHER, the parties of the first part shall also pay to the entire

discharge of the said Railway Company the interest on the Mortgage Bonds issued by the said Company, as follows: the interest upon the Mortgage Bonds issued and delivered to the parties of the first part on account of the said Main Line, until the time of the full completion of the said Main Line according to the terms of the present contract, and the interest upon the Mortgage Bonds issued and delivered to the parties of the first part, on account of the Piles Branch, until the time of the full completion of the said Piles Branch, in accordance with the terms of this present agreement. And until such completion, the parties of the first part shall have right to all the revenue and earnings that may be derived from the running of the said Main Line and Piles Branch.

The party of the second part, acting as aforesaid, and in consideration of the full and faithful performance by the said parties of the first part of all of the conditions and covenants herein before contained and set forth, to be by them performed, executed, and kept, HEREBY COVENANTS AND AGREES to pay to the said parties of the said part, in full compensation therefor and liquidation thereof, the sum of SEVEN MILLION DOLLARS, current money of Canada, in the Stock Certificates or Municipal Debentures, received from the City of Quebec for subscriptions to the Stock of said Railway Company, and in the Mortgage Bonds of the said North Shore Railway Company, in the following amounts and proportions—that is to say:

1st—In the Stock Certificates or Debentures of the City of Quebec, to be issued in payment for a subscription of One Million Dollars to the Capital Stock of the said North Shore Railway Company, according to the progress of the work, and *pro rata* to the total cost of the road between Quebec and Montreal, on certificates of the Engineer to be named by the Corporation of the City of Quebec, and in accordance with other conditions and limitations contained and set forth in an act of the Legislature, 34 Vict., Chap. 22, and amended by the City Council of Quebec, under the authority of the said act, at a meeting held on the sixth of February now last past, a certified copy of which amendments has been annexed to these presents, and signed by the parties hereto, the sum of *One Million Dollars*, (the parties of the first part hereby agreeing to abide by, and comply with the said conditions of the said municipal subscriptions of the City of Quebec, in so far as they may be concerned).

2d. The sum of *Six Million Dollars* in Mortgage Bonds of the said

North Shore Railway Company, based and being a first lien upon its entire Railway Fixtures and Franchises, and upon the two million acres of land donated and granted to the said Railway Company, under the provisions of an act of the Legislature of the Province of Quebec, 34 Victoria, Chap. XXI. entitled "An Act to Provide for the Granting of Certain Lands in Aid of the Railway Companies therein Mentioned," pledging, hypothecating, and mortgaging the same.

IT IS ALSO STIPULATED by both parties, that the said Mortgage Bonds so issued by the said Company shall be on the road and the lands simultaneously as aforesaid, or in one or two classes of Mortgages on the road or lands simultaneously or separately, at the choice of the parties of the first part; *provided* however that the aggregate sum of said Bonds so issued, do not exceed the sum of *Six Million Dollars*.

IT IS ALSO AGREED AND UNDERSTOOD between the parties of the first and second part, that the entire issue of the said Mortgage Bonds shall not exceed the sum of *Six Million Dollars*, and that they shall bear an interest of seven per cent. per annum, payable semi-annually; and that the said Mortgage Bonds shall mature at the expiration of not less than twenty years from the date of their issue; and, finally, that both principal and interest shall be made payable either in the City of London, England, or in the City of New York, United States of America, at the option of the said parties of the first part.

AND the said party of the second part FURTHER COVENANTS AND AGREES that payments as aforesaid shall be made every month to the parties of the first part during the progress of the work, which payments shall be made based upon the estimate and certificate of the Engineer in Chief of the said Railway Company, of work done, materials and fixtures delivered and ready for delivery, and for payments made on account thereof.

AND IT IS FURTHER MUTUALLY AGREED AND UNDERSTOOD by and between the parties hereto, that for the purpose of enabling said Engineer to arrive at a just and equitable basis for said monthly estimates and payments, it shall be his duty immediately after the execution of this Agreement, or as soon thereafter as the necessary surveys, plans, and estimates can be made, to prepare a Schedule, which shall embrace so far as may be anticipated, all the different items of expenditure to be made, and liabilities to be incurred, by the parties of the first part, under and by virtue of this Agreement, both in connection with the

Main Line and Piles Branch respectively ; which items shall be classified substantially under the following general heads :

- 1st. Engineering.
- 2d. Right of Way, Fencing, and Gates.
- 3d. Clearing and Grubbing.
- 4th. Graduation.
- 5th. Masonry, including Foundations.
- 6th. Bridging.
- 7th. Superstructure.
- 8th. Machine-Shops, Engine-Houses, and Water-Station.
- 9th. Passenger and Freight Depots.
- 10th. Locomotive and Rolling Stock.
- 11th. Steamboat for St. Maurice River.
- 12th. Interest upon Bonds and Debentures.
- 13th. General Supervision of the Work.
- 14th. Expenses of the Railway Company.
- 15th. Contingent Expenses.

And the said Engineer shall place opposite to each item in the said Schedule such a relative amount as in his judgment the said item should bear in proportion with the total cost, as per this Agreement, of the said Main Line and Piles Branch respectively, so that the aggregate of the said items in the respective Schedules shall amount to the sum of *Seven Million Dollars*.

The monthly estimates, as made and certified by the said Engineer in Chief, shall be based upon and in *pro rata* of the work done, materials and fixtures delivered and ready for delivery, and payments made under the general heads embraced in the said Schedule for the Main Line and Piles Branch respectively. And further, the said Engineer shall deduct ten per cent. from each monthly estimate, which amount shall be retained in the hands of the party of the second part until the following month, as security for the full and faithful performance of the present contract by the parties of the first part.

And inasmuch as the *One Million Dollars* of total Stock Certificates voted and subscribed by the Corporation of the City of Quebec, must and are to be expended entirely upon the said Main Line, between Quebec and Montreal, therefore, the said monthly payments or account of the said Main Line, shall be made respectively in the Stock certificates and Mortgage Bonds hereinabove mentioned in such ratio

or proportion of each, as the *One Million Dollars* of the total Stock certificates voted by the City of Quebec aforesaid bears to the balance or remaining portion of the total cost, as per Schedule of said Main Line, which balance or remaining portion is to be paid in the aforesaid Mortgage Bonds of the said North Shore Railway Company. As regards the monthly payments on account of the Piles Branch, they shall be made entirely in the Mortgage Bonds of the said Railway Company.

AND IT IS FURTHER AGREED, COVENANTED, AND UNDERSTOOD by the parties of the first and second part, that the time hereinbefore specified, at or before which the entire Railway, together, its fixtures, equipments, and rolling-stock, &c., shall be fully completed with the terms and conditions hereof, shall be considered as of the essence of this agreement.

AND as an inducement for the earlier completion of the said works by the party of the first part, the party of the second part hereby COVENANTS AND AGREES to pay to the parties of the first part a *bonus* of full Paid-up Stock in the said North Shore Railway Company as follows, to wit: If completed one month earlier than the time hereinbefore specified, that is the first day of May, One Thousand Eight Hundred and Seventy-seven, (1877), the sum of *Fifteen Thousand Dollars*. If completed two months earlier, the sum of *Twenty Thousand Dollars* per month. If completed three months earlier the sum of *Twenty-five Thousand Dollars* per month; and so on, in the same ratio, until the sum of *Two Hundred and Fifty Thousand Dollars* is reached, which amount shall be regarded as the extreme limit to which the aforesaid *bonus* of Capital Stock shall be applied; and in no consideration whatsoever shall the parties of the first part be entitled to to receive a larger *bonus* than the aforesaid amount of *Two Hundred and Fifty Thousand Dollars* of Stock.

AND IT IS FURTHER AGREED AND UNDERSTOOD by and between the parties of the first and second part, that inasmuch as the lands required for right of way, depot grounds, &c., for the said Railway and its appurtenances, must be procured through the agency and in the name of the said Railway Company, therefore the said party of the second part HEREBY UNDERTAKES AND AGREES to procure the said lands as fast and whenever the same may be required by the said parties of first part for the construction of the said line of Railway, and Piles

Branch, and appurtenances, as hereinbefore provided; and it will be the duty of the parties of the first part to give to the party of the second part due notice of such lands as may be required for the time being; and a reasonable delay from such notice, or such as is obligatory by law being allowed to the party of the second part to procure such lands.

AND the parties of the first part do also COVENANT AND AGREE to pay all necessary expenses connected with the procuring and purchasing of the said lands and the vesting of the title of the same in the name of said Railway Company, according to law; *provided*, however, the said expenses do not exceed the sum of *One Hundred and Ten Thousand Dollars*, Canadian currency; any excess over this amount shall be borne and paid by the said North Shore Railway Company.

For the purpose of facilitating the negotiations and sale of the Mortgage Bonds of the said North Shore Railway Company, hereinbefore referred to, it is FURTHER MUTUALLY UNDERSTOOD, that as soon as the said Mortgage or Mortgages can be executed and the Bonds prepared in proper form and as required by law, they shall be deposited by the party of the second part with and in the hands and possession of some responsible Trustee or Moneyed Institution, to be mutually selected and agreed upon by the parties hereto, and located either in Canada, the United States of America, or Europe, with the understanding that whenever a sale of the Mortgage Bonds is made and effected by the parties of the first part or their agents, of either the whole or any portion or class thereof, the Mortgage Bonds so sold shall be delivered by the said Trustee or Moneyed Institution to the purchaser, upon the payment of the full amount of their proceeds into the hands of said Trustee or Moneyed Institution.

AND IT IS FURTHER UNDERSTOOD, that the aforesaid Trustee or Trustees or Moneyed Institution, or any other which may be selected by the parties hereto, shall hold the proceeds of the sale of the whole or portion of the said Mortgage Bonds, subject only to the draft or order of the President and Treasurer or other duly authorized officer or officers of the said North Shore Railway Company, to be paid to the parties of the first part upon the monthly and final estimates and certificate of the Engineer, on account of the construction and equipment of the said North Shore Railway, as hereinbefore provided; it being UNDERSTOOD, in making such payments, that any loss or discount which

may occur in the sale of the said Mortgage Bonds shall be borne by the said parties of the first part. And any interest that may be received by the said Trustee or Trustees or Moneyed Institution, as the case may be, from an investment of the said proceeds, shall be applied to the payment of the interest due or to become due upon the said Mortgage Bonds, and any deficiency to meet the interest on the said Mortgage Bonds shall be paid by the parties of the first part as hereinbefore provided and set forth.

AND IT IS FURTHER AGREED AND COVENANTED between the parties of the first and second part, that whenever any payments are hereinbefore referred to as being or to be made in the Mortgage Bonds of the said North Shore Railway Company, it will be understood as applying and referring also to an equivalent in the net proceeds of the said Bonds, as provided for in the preceding clause hereof.

In case the parties of the first part should elect or choose to have more than one class of the said Mortgage Bonds issued by the said Railway Company as aforesaid (provided the law authorizes such issue), it will be understood that the monthly and final payments to be made on account of this Agreement in the Mortgage Bonds of the said Railway Company, or their proceeds, will be made either entirely from one class, or in a proportionate amount from each class, at the option of the said parties of the first part.

FINALLY, it is WELL UNDERSTOOD between the said contracting parties that nothing contained in this contract can now or at any time hereafter be interpreted against the acquired rights of the Corporation of the City of Quebec, in virtue of the Provincial Statute 34 Vict., Chap. 22, and the amendments made thereto, by the Council of the said City of Quebec.

AND for the due execution hereof the parties of the first and second part have elected their domiciles at the office of the North Shore Railway in the City of Quebec.

THUS DONE, EXECUTED, AND PASSED in the said City of Quebec, on the day, month, and year first above written, under the number five hundred and fourteen, in the presence of WILLIS RUSSELL, Esquire, hotel owner, residing in the City of Quebec, and General Silas Seymour, formerly of the City of New York, and actually in the City of

Quebec, who both have certified the identity of the parties of the first part.

IN WITNESS WHEREOF, the parties of the first and second part have to these presents set and subscribed their names and signatures, the party of the second part affixing also the Seal of the said Railway Company, with and in presence of the undersigned witnesses, and the said Notary Public also hereunto subscribing after the due reading hereof.

(Signed)

[L. S.]

PERRY H. SMITH,
SAM'L L. KEITH,
GEO. L. DUNLAP,
JOSEPH CAUCHON,
President N. S. R. W. C.

WILLIS RUSSELL,
SILAS SEYMOUR,
J. A. CHARLEBOIS, *N. P.*

True copy of the original remaining of record in my office.

(Signed).

J. A. CHARLEBOIS, *Notary Public.*

NORTH SHORE RAILWAY.

SPECIFICATIONS

For the Construction and Equipment of the MAIN LINE.

I.—GENERAL PROVISIONS.

1. The Initial point of the Main Line of the North Shore Railway will be at or near St. Paul's Market, in the City of Quebec, at such point as the Railway Company may designate. And the Terminal point will be at or near the north-easterly limits of the City of Montreal, at such point as the Railway Company may designate. The location of the line and the arrangement of grades, between the initial and terminal points, will be made under the direction and supervision of the Engineer in Chief, and subject to the approval of the Board of Directors of said Company.

2. The term *Engineer*, when used, either in the contract or specifications, will in all cases refer to the Engineer in Chief of the North Shore Railway, or to any subordinate Engineer, who, acting under instructions from the Engineer in Chief, may, for the time being, have the direct charge and supervision of the work particularly referred to.

3. The work will, in all cases, be under the direct charge and control of the Engineer; and his orders must be complied with in every respect, and under all circumstances. He will have power, and it will be his duty to reject, or condemn, at any stage or condition of the work, all workmanship or material, which, in his opinion may be imperfect or unsuitable; and the same must be immediately corrected, or replaced, to his entire satisfaction. He will also have power to discharge from the work, any foreman, mechanic, or laborer, who may prove to be either incompetent, or disrespectful and riotous in his conduct; and the person so discharged shall not be employed thereafter upon any portion of the work.

4. The work of graduation will be divided into sections, averaging about one mile in length, the sectional divisions being made to accommodate, as nearly as practicable, the economical distribution of the material found in excavations, or required in embankments. But this will not prevent the removal of materials required for the road-bed, or mechanical structures, from one section to another, whenever, in the opinion of the Engineer, it may be necessary or expedient to do so.

5. The right of way, or lands procured by the Railway Company for the roadway, depots, sidings, machine-shops, &c., will not include private roadways to and from the work during its construction, nor lands required by the contractor, for storing and manufacturing timber, stone, and other materials or fixtures, preparatory to their being used in the work. These must be procured by the contractor, at his own proper charge and expense.

6. It is intended that the materials and workmanship, both in the roadway, track, structures, buildings, and equipments, shall all be *first class*, so far as regards strength, durability, and practical adaptation. Nothing superfluous will be required; but every thing must be executed neatly, thoroughly, and in good taste, so as not to offend the eye, nor convey an idea of carelessness or want of skill in execution.

7. Working plans and specifications more in detail, for the more important Mechanical Structures, Depot-Buildings, Machine-Shops, Engine-Houses, &c., will be furnished by the Engineer, as they may be required from time to time, during the progress of the work.

II.—RIGHT OF WAY AND FENCING.

1. The lands required for the roadway, depot-grounds, sidings, machine-shops, and other appurtenances of the Railway, must be of such width as the Engineer may direct; and will embrace a width sufficient for a future double track, whenever the same may be required by the business of the road.

2. A good and substantial fence, to be composed of durable material, must be constructed along the boundary line of the Company's lands, upon both sides of the Railway throughout its entire length; and convenient gates must be inserted whenever required for farm crossings or other purposes. In settled portions of the country the fencing should be completed in advance of the commencement of work upon the road, in order to prevent damages to the adjoining land owners.

III.—CLEARING AND GRUBBING.

1. The ground set apart for the Railroad and its appurtenances must be chopped and cleared to the boundary of the Company's lands. The stumps, bushes, and other rubbish, which are of no value, must either be destroyed by fire, or otherwise removed, so as not to disfigure nor interfere with the work.

2. Trees that are of any value for wood or timber, must be neatly trimmed, and either chopped or sawed to such lengths as the Engineer may direct, and piled in some accessible place for future use. Such portions of this timber as in the opin-

ion of the Engineer may be suitable for bridges, foundations, cross-ties, or other purposes connected with the work, may be used by the contractor free of charge; but the remainder will be retained and preserved for the use of the Company.

3. Over all excavations, and also under all embankments not exceeding two feet in height, the stumps and other perishable matter must be grubbed out, and removed entirely from the road-bed, slopes, and drains. Where embankments exceed two feet in height, it will be sufficient to cut the stumps low; but in no case must they be left so high as to come within two feet of the grade line of the road.

IV.—GRADUATION.

1. The road-bed will be graded for a single track, except where depots, stations, or sidings occur.

2. The road-bed for single track will be not less than twelve feet in width at grade—but will be increased on embankments, according to height, or character of material, at the discretion of the Engineer.

3. The grading will be made of such extra width, at stations and sidings, as the Engineer may direct.

4. All excavations must be made sufficiently wide to allow of ample side drainage.

5. The side slopes of excavations and embankments, which are composed of loose material, will generally be one and a half base, to one vertical—but they will vary from this, according to height, or character of material, at the discretion of the Engineer.

6. The materials composing embankments must be entirely imperishable.

7. Whenever the material found in road-bed or side excavations is unsuitable for sustaining the permanent track, such other material shall be substituted as the Engineer may direct.

8. Material found in excavations will generally be placed in embankments; but such material will be wasted, and other material borrowed for embankments, whenever directed by the Engineer.

9. Spoil banks and borrowing pits will be so made as not to disfigure nor interfere with the permanent road-way and slopes; and they must be dressed up in such form and dimensions as the Engineer may direct.

10. Highways, road crossings, and private roads, contiguous to the Railroad, will be changed, constructed, or rebuilt, whenever directed by the Engineer; and the work must be so carried on, as not to interfere with the rights and privileges of the public, or adjoining property owners.

11. Whenever stone are found, in rock excavations, that are suitable for masonry structures, or for slope, retaining or rip-rap walls required upon the work, they may be used for such purposes by the contractor; but when such

material is not so required, it will, at the discretion of the Engineer, be retained by the Company for other purposes, and neatly piled up by the contractor, so as to be accessible from the track.

12. Retaining, and protection walls will be constructed; and the slopes of embankments will be faced with rip-rap, whenever required for the safety of the work.

13. The road must be thoroughly drained in all places, so that no water will be allowed to accumulate and stand either in the cuttings, or along side of the embankments; and ample bridges, culverts, or sluices must be constructed across the roadway at proper points, for the purpose of leading the water away from the Railroad to its natural channels.

14. In grading for a single track, care will be taken not to excavate side ditches and borrowing pits, nor to deposit waste material, where the same will interfere with the future construction of a double track.

V.—FOUNDATIONS.

1. Foundation pits will be excavated of such size, and to such depth as the Engineer may direct. When below water, they must be kept dry by pumping, bailing, or extra draining, until the excavation is completed, the foundations prepared, and the masonry, or other structure brought above the surface line of the water.

2. Whenever solid rock is not found, the foundations will consist either of paving, concrete, piling, or platforms of timber and plank, as the Engineer may direct; the whole to be protected by sheet piling, rip-rap, crib-work, or coffer dams, when necessary; and executed in the most thorough and substantial manner.

VI.—MASONRY.

1. The different varieties of stone work required for abutments and piers of bridges, arch and box culverts, open drains, cattle guards, slope, and retaining walls, &c., must be executed in a skillful and workmanlike manner, after the general plan of alternate headers and stretchers; and must be composed of durable, well-shaped stones, laid upon their broadest or quarry beds, and adapted to the formation of the different works or structures.

2. Bridge abutments and piers, arch culverts, and the side walls of open drains, road crossings, or cattle passes exceeding five feet in height, will be laid in hydraulic mortar; and will correspond in character to what is generally termed first-class rubble masonry. The face stone must be hammer dressed to good beds and joints, and pitched in, or scabbled, to a line, upon the beds and builds, corresponding with the finish line of the work. All angles that are exposed to view, must be clean and sharp with the chisel, to an arras of at least one inch in width, and laid to a perfect line. The work will be laid in courses, each of uniform thickness, when the quarry affords strata suitable for that purpose; but when this is not the case, it will be sufficient to build and level up sections of from two to four

feet in height, as the Engineer may direct, with square well-shaped stones of suitable size, brought to close joints, and free from spalls, both vertically and horizontally.

3. The coping must be of proper and uniform thickness, neatly hammer dressed upon the face, beds, and vertical joints; the front angles must be cut square with the chisel, and the stone must be of sufficient width to give a good finishing bond to the work after projecting a few inches over the face of the wall. In cases where the coping forms the finishing course, or bridge seat for truss bridges, their upper surfaces will be dressed to a smooth and uniform plane; and they will be securely fastened to each other, and to the main wall, by means of strong iron clamps and dowels, whenever directed by the Engineer.

4. The stone composing the arch, in culverts, must be placed perpendicular to the curve; and extend entirely through the thickness of the arch, and be dressed throughout to close beds and joints. These must be laid in regular courses of uniform thickness, and the inner faces dressed smoothly to a line with the hammer. The outer, or ring stone, must have an extra finish; and the key stone must be neatly cut with the chisel, and so placed as to project slightly from the face of the work.

5. The mortar used in masonry must be composed of the best quality of hydraulic cement, mixed in proper proportions, with clean sharp sand; and applied to the work within the proper time for rendering the adhesion and solidification most perfect. When grout or concrete are used, they will be manufactured and applied under such special directions as the Engineer may deem applicable to the case.

6. Box culverts, and open drains, sluices, or cattle-guards, not exceeding five feet in height, will be of rubble masonry, and will generally be laid dry. The side walls must be laid up strong and well bonded throughout, the upper course bonding the entire wall. The covering stone of box culverts must be entirely sound, and wide enough to extend at least two thirds across either wall; and generally of a thickness equal to one half of the width or space to be covered. The end walls of box culverts must be laid with extra care and finish, the stone being of good beds and builds, with joints and angles clean and square, so as to be free from spalls. The coping must be of proper and uniform thickness, neatly hammer dressed on the face; and so laid as to have a slight projection over the front wall, and to extend back so as to give a good finishing bond to the work. The ends of the side walls of open drains, &c., will be composed of square well-shaped stones, laid in regular steps or offsets to correspond with the slope of the adjoining bank; and so well bedded and fitted as to require no spalls or wedges to keep them permanently in place.

7. Slope and retaining walls will be laid at such angle, and of such thickness, as the Engineer may direct. The stone must be sufficiently massive and well bonded, to withstand the lateral thrust of the banks, and also any shock or pressure to which they may be exposed upon the outer surface. The upper course must be as nearly uniform in thickness as practicable, and sufficiently wide to bond the entire wall.

VII.—BRIDGING.

1. The timber composing the bridges must all be of the strongest and most durable kinds; and must be properly adapted to the specific purpose for which it is intended. It must also be entirely free from sap, shakes, loose or black knots, or other symptoms of decay. The kind, length, and size required for the different structures, must conform to the bills furnished by the Engineer; and be framed and put together in the most skillful and workmanlike manner, in conformity with the plans and specifications furnished by the Engineer for the respective structures.

2. The iron required in rods, straps, bolts, nuts, washers, &c., must be of the best quality in use for such purposes; and it must be neatly and properly manufactured.

3. The truss bridges must be of a quality equal in strength and durability to the Howe patent truss, the proportions varying according to the length between bearings.

4. Bridges of smaller span, where full trussing is not required, will be built in accordance with the plan and specifications furnished for each particular structure by the Engineer.

VIII.—SUPERSTRUCTURE.

1. The cross-ties must be of the best and most durable timber attainable within a reasonable distance from the line of the railroad. The particular kinds for each locality, will be designated from time to time by the Engineer.

2. The ties will be eight feet long, six inches thick, and if flattened upon only two sides, they must have a bearing surface of at least six inches in width in the narrowest part; and they must be sawed or cut square at the ends, and of uniform length. The timber must be sound and straight, and either hewn or sawed to a line, with parallel surfaces, at top and bottom. If hewn or sawed upon four sides, they must be six by seven inches throughout their entire length.

3. The iron rails must be of the best quality of English or American Manufacture, weighing not less than fifty-six pounds per lineal yard; and of such form or pattern as the Engineer shall approve.

4. The joints must be properly secured by fish-plates of the most approved pattern, leaving sufficient space between the rails to allow for their contraction and expansion.

5. The track must be laid in the most thorough and workmanlike manner. The cross-ties will generally be laid two feet apart from centre to centre. They must be thoroughly bedded with a maul, and their upper surfaces brought to a perfect line with the straight-edge, so as to conform to the grade-pegs, as given by the Engineer. And the centre of each tie, when laid and properly bedded, must conform to the line of centre stakes as given by the Engineer.

6. The rails will be laid with a gauge of four feet eight and one half inches, and thoroughly spiked with two spikes in each cross-tie, upon alternate sides of each bar, so driven as not to split or otherwise injure the tie.

7. After the rails are laid, spiked, and perfectly adjusted, the spaces between the ties must be filled in with proper material, and thoroughly tamped, so as to hold the ties firmly in position, and, at the same time, secure as perfect drainage for the superstructure as possible.

8. Neither the slopes nor the road-bed must be disfigured or weakened by taking material therefrom for filling in or adjusting the track.

9. Whenever, in the opinion of the Engineer, the material composing, or contiguous to the road-bed, is unsuitable for ballasting the track, other suitable material shall be substituted therefor, and hauled in upon the track with gravel trains, until the same is thoroughly ballasted to the satisfaction of the Engineer.

10. Switches and sidings shall be put in, connecting either with the main track or with other sidings, at such points as the Engineer may designate. And these sidings shall, if required, be equal in the aggregate to at least five per cent. of the main line of track.

11. At all street, public road, and farm crossings, a suitable platform of plank, equal in thickness to the height of the rails, shall be laid thoroughly spiked down between the rails, and also upon the approaches thereto, so as to insure a safe and convenient crossing.

12. A suitable sign-board, painted in large letters, will be placed at each road crossing, indicating the danger of crossing the track while the engine bell rings.

13. Suitable and permanent cattle guards will be constructed underneath the track, at all public road crossings; and the adjoining fences must be so connected therewith as to prevent animals from entering upon or following the track.

Should the general plan of superstructure, for the whole or any portion of the Railway, be changed hereafter, by common consent, from cross-tie bearings to continuous longitudinal bearings, the following specifications will be substituted for articles corresponding to the same numbers in the foregoing specifications:

1. The longitudinal sills must be of the best and most durable timber attainable within a reasonable distance from the line of the railroad. The particular kinds for each locality will be designated from time to time by the Engineer.

2. The sills may be of any convenient length not less than fifteen feet, excepting upon curves where they must be of such lengths as will afford a perfect bearing for the iron rails throughout their entire length, and also a suitable margin outside of the rails for proper spiking. They will be eight inches thick, and, if flattened upon only two sides, they must have an available bearing surface of at least ten inches in width in the narrowest place. If hewn or sawed upon four sides, they must be eight by twelve inches throughout their entire length.

The timber must be sound and straight, and either sawed or carefully counter-hewn to a line with parallel surfaces at top and bottom; and must be sawed or cut off square at the ends. The sills will be connected together laterally, at proper intervals, by means of cross-ties neatly framed into their upper surfaces, in order to keep the rails to the proper gauge. It is assumed that these ties may be eight feet apart from centre to centre upon tangents, and six feet upon curves, but these distances may be varied, at the discretion of the Engineer, it being understood that the average number of ties will not exceed eight hundred per mile. The cross-ties will be six and one half feet long, five inches wide, and two and one half inches thick, and they must be of sound white oak, or other equally good and durable timber. When framed into the sill, their upper surface must be flush with the surface of the sill; and they must be firmly held in their places by means of a suitable spike or tree-nail driven through them into the sill at each joint.

5. The track must be laid in the most workmanlike manner. The sills must be thoroughly bedded with a heavy maul, and their upper surfaces brought to a perfect plane and line, so as to conform to the height of the grade-pegs as given by the Engineer; and the longitudinal centre of each sill, when laid and properly bedded, must be in a line parallel with the centre line of the railway, and such a distance from it as to bring the centre line of the sill directly underneath the centre line of the iron rail, which it is to support.

6. The rails will be laid with a gauge of four feet eight and one half inches, and so arranged as to break joints at least two feet with the sills upon which they rest. They must be thoroughly spiked to the sills at intervals of three feet upon each side of the rail, upon tangents and two feet upon curves, and the spikes must be so driven as not to split or otherwise injure the sill or cross-tie. One spike must be driven into and through each cross-tie, upon the outer side of each rail; and if this spike is two inches longer than ordinary railroad spike, and of proportionate size, it may be substituted at the tie joints for the fastenings specified at the close of article 2.

7. After the rails are laid, spiked, and perfectly adjusted, the space between and immediately outside of the sills, must be filled in with suitable material to such depth as the Engineer may require, and thoroughly tamped, so as to hold the sills firmly in position, and at the same time secure as perfect drainage for the superstructure as possible.

IX.—MACHINE SHOPS, ENGINE HOUSE, AND WATER STATIONS.

1. One large and commodious Machine Shop is to be constructed, either of brick or stone, at or near the station at Quebec, of such dimensions, and fitted up with such machinery and other conveniences, as the Engineer may deem suitable and proper for the ordinary repairs, building, and rebuilding of the Engines and other rolling stock in use upon the road.

2. One Repair Shop is to be constructed, either of brick, or stone, at each of

the stations Three-Rivers and Montreal, of such dimensions, and fitted up with such machinery, as the Engineer may deem suitable and proper, for the ordinary repairs of rolling stock at those stations.

3. One Engine House with ten stalls, and a turn-table, is to be constructed, either of brick or stone, at each of the stations Quebec, Three-Rivers, and Montreal, of such dimensions and details of construction as the Engineer may deem proper.

4. Water Stations, with all modern improvements, shall be constructed, at each of the stations Quebec, Three-Rivers, and Montreal; and also at such intermediate stations, or points, at intervals of not less than fifteen miles, as the Engineer may deem necessary and proper, for the safe and convenient working of the road.

X.—PASSENGER AND FREIGHT STATIONS.

1. One large and commodious Passenger House shall be constructed, either of brick or stone, at each of the stations Quebec, Three-Rivers, and Montreal, of such dimensions, and with such finish and furniture, as the Engineer may deem necessary and proper for the accommodation of the public; and for such offices as may be necessary and convenient for the transaction of the business of the Company at those points.

2. One large and commodious Freight House shall be constructed, either of brick or stone, at each of the stations Quebec, Three-Rivers, and Montreal, of such dimensions, and with such offices and fixtures as the Engineer may deem necessary and proper for the convenient transaction of business at those points.

3. A Station House, with passenger and freight accommodations combined must be constructed either of wood, brick or stone, at each of the intermediate, or way stations, of such dimensions, and with such furniture and fixtures, as the Engineer may deem necessary and proper for the accommodation of the way business upon the road.

XI.—LOCOMOTIVE ENGINES, AND ROLLING STOCK.

1. Nine first class Passenger Engines, and seven first class Freight Engines shall be furnished upon the road, of such weight, and details of construction, as the Engineer may deem necessary and proper for their respective uses.

2. Ten first class passenger cars; eight second class passenger cars; seven baggage, mail, and express cars combined; eighteen emigrant cars; twenty-two cattle cars; one hundred and ten box freight cars; seventy-five platform cars; and eighteen hand cars shall be furnished upon the road, of such dimensions, construction, and finish as the Engineer may deem necessary and proper for their respective uses.

These are the specifications mentioned in the foregoing contract, annexed to

these presents, certified, acknowledged, and signed by the parties to these presents, and the undersigned Notary, and the said witnesses after the due reading thereof, on this Fifth Day of April, in the Year One Thousand Eight Hundred and Seventy-two.

(Signed),

P. H. SMITH,
SAM'L L. KEITH,
GEO. L. DUNLAP,
JOSEPH CAUCHON,
President N. S. R. W. C.

WILLIS RUSSELL,
SILAS SEYMOUR,
J. A. CHARLEBOIS, *N. P.*

True copy of the original annexed to the deed of agreement,

(Signed),

J. A. CHARLEBOIS, *N. P.*

NORTH SHORE RAILWAY.

SPECIFICATIONS

For the Construction and Equipment of the PILES BRANCH.

The Specifications for the construction and equipment of the *Main Line*, so far as relates to the general character of the work and materials, will apply, and be in force upon the *Piles Branch*, subject only to the following modifications:

1. The lower Terminus of the Piles Branch will be within the limits of the Town of Three Rivers; and, if the principal portion of the line shall be located by the Railway Company upon the east side of the St. Maurice River, the point of Junction with the Main Line will be so fixed that one bridge over said River will answer for both the Branch and Main Line. The upper Terminus will be fixed by the Railway Company at or near the Grand Piles, upon the St. Maurice River, where a convenient connection may be made with the navigable waters of said River.

2. The right of way will be procured, and the road-bed prepared, without any reference to the future construction of a second or double track.

3. Trestle work may be substituted for embankments and masonry, in extreme cases, where, in the opinion of the Engineer, either on account of the scarcity of material, or other sufficient causes, it may be justifiable or expedient to do so. But the trestle work, when so substituted, must be made to conform to the plans and specifications furnished by the Engineer.

5. The Iron Rails may be of not less weight than than forty-five pounds per lineal yard.

6. An Engine-House, with turn-table, must be constructed, either of brick or stone, at the terminal station at the Grand Piles, with stalls for two Engines.

6. A Water-Station must be constructed at the Grand Piles; and also one, if

required by the Engineer, at some convenient point between the Grand Piles, and the Junction of the Branch and the Main Line.

7. A Passenger and Freight Station combined, must be constructed at the station at Grand Piles; and also two or more, if required by the Engineer, shall be constructed at some proper intermediate points between the Junction and Grand Piles.

8. The Rolling Stock will be of the same character as required for the Main Line: one passenger engine; one freight engine; two first class passenger cars; two second class passenger cars; one baggage and express car; two emigrant cars; three cattle cars; fifteen box freight cars; twenty-five platform cars; and two hand cars must be furnished upon the Piles Branch.

9. A suitable and permanent Wharf or Landing must be constructed at the Grand Piles, for the convenient transfer of passengers and freight, between the cars and steam-boat.

10. A good and substantial Steam-boat, such as the Engineer shall approve, and suitable for the navigation of the St. Maurice River, above the Grand Piles; and, having proper accommodations for the transportation of passengers and freight, must be furnished upon the St. Maurice River, at the terminal station of the Branch, at the Grand Piles.

These are the specifications mentioned in the foregoing contract, annexed to these presents, certified, acknowledged, and signed by the parties to these presents, the witnesses, and the undersigned Notary, after due reading thereof, on this Fifth Day of April; in the Year One Thousand Eight Hundred and Seventy-two.

(Signed),

P. H. SMITH,
SAM'L L. KEITH,
GEO. L. DUNLAP,
JOSEPH CAUCHON,
President N. S. R. W. C.

WILLIS RUSSELL,
SILAS SEYMOUR,
J. A. CHARLEBOIS, *N. P.*

True copy of the original annexed to the deed of agreement.

(Signed),

J. A. CHARLEBOIS, *N. P.*

OFFICE OF THE NORTH SHORE RAILWAY COMPANY, }
Quebec, March 5th, 1872.

At a meeting of the Board of Directors of North Shore Railway Company, held on the 21st day of February, 1872, the following resolution was adopted :

Resolved, That this Company having taken into consideration the letter of Messrs. P. H. SMITH, SAM. L. KEITH, written under their own name, as well as that of their associates, and addressed to the Honorable JOSEPH CAUCHON, President, at New York, under date 13th February, 1872, accepts their propositions to construct the NORTH SHORE and PILES RAILWAY, according to the conditions mentioned therein, and authorizes the President to sign a contract based on the said proposition.

Certified,

A. H. VERRET,
Secretary.

This is the resolution mentioned in the foregoing Contract, signed by the parties, the witness, and the undersigned Notary, on this Fifth day of April, One Thousand Eight Hundred and Seventy-two.

(Signed),

P. H. SMITH.
 SAM. L. KEITH.
 GEO. L. DUNLAP.
 JOSEPH CAUCHON.
President N. S. R. W. C.

WILLIS RUSSELL.

SILAS SEYMOUR.

J. A. CHARLEBOIS, *N. P.*

True copy.

(Signed),

J. A. CHARLEBOIS, *N. P.*

CITY CLERK'S OFFICE, CITY HALL, }
Quebec, February 7th, 1872.

At a special meeting of the Council of the City of Quebec, held on the Sixth of February, instant, was

Resolved, That the Fourth, Seventh, and Thirteenth conditions imposed by the Council of the City of Quebec, on the Twenty-eighth day of the month of October, One Thousand Eight Hundred and Seventy,

to their subscription of *One Million of Dollars* to the Stock of the North Shore Railway Company, and contained in the Statute of the Province of Quebec, 34 Victoria, chap. 22, are by the present repealed, and the following substituted thereto :

4th—The Corporation shall issue their Capital, according to the progress of the work, and *pro rata* to the total cost of said road between Quebec and Montreal, on certificates of the Engineer to be named by themselves.

7th—The Bonds to be issued by the Company, on the security of the road and lands, shall be at a not less date than twenty years.

13th—The main work-shops of the Company shall be within the municipal limits of the City of Quebec.

It was also

Resolved, That a duly certified copy of the resolution adopted at this meeting, proposing a change in certain conditions attached to the subscription of *One Million of Dollars* to the Stock of the North Shore Railway Company, be submitted for acceptance to the Directors of said Company, and that the representatives of this Council at the said Board of Directors be requested to use their best endeavors to carry out the views of this Council contained in the said resolution.

Certified,

[L. s.]

L. A. CANNON,

City Clerk.

This is the resolution of the City Council mentioned in the foregoing contract, signed by the parties, the witnesses, and the undersigned Notary, this Fifth day of April, One Thousand Eight Hundred and Seventy-two.

(Signed),

P. H. SMITH,

SAM. L. KEITH,

GEO. L. DUNLAP,

JOSEPH CAUCHON,

President N. S. R. W. C.

WILLIS RUSSELL,

SILAS SEYMOUR,

J. A. CHARLEBOIS, *N. P.*

True copy of the resolution annexed to the original deed.

(Signed),

J. A. CHARLEBOIS, *N. P.*

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